

# Modern Acts, Conservation of Fish and Colonial Interest: Inland Fisheries in Mid-Ganga *Diara* Ecology, India

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## Abstract

Early modern regimes in India did not impose any tax on *fisheries*. After getting the grant of *diwani* or land revenue rights in 1765 the British East India Company tried to re-define all traditional rights through modern Acts and Legislations. It gradually established state control over rivers, lakes and ponds, and thus transformed the pre-colonial way of surviving the adverse ecological setting. State control over water meant control over access to river water. This considerably changed the pre-colonial relationship between the river-dependent communities of fishermen and fisheries. By the last quarter of the nineteenth century, many colonial reports recommended that fisheries might prove a valuable source of revenue for the state. It was after this that the British government passed two inland fisheries acts. For a large fishing community living in vulnerable *diara* landmass the modern acts became all the more distressing. This paper attempts to understand these acts in the light of European notion of fisheries conservation and colonial interest to control water regime.

## 1. Introduction

The history of control over natural resources in India is very old. From the very beginning in sixth century BCE, the states depended on the amount of control they were able to obligate on resources. To maintain its own standing army any state would look for newer avenues of earnings. In fact, the origin of land revenue as a major source of income could be traced to the requirements of the expanding states. The ruler as the head of state began to be accepted as having certain rights over land, and therefore, land revenue remained the fulcrum of state society until the time the British ruled as colonial power. Although many medieval and early modern states made effort to dig canals, tanks, ponds and wells for the local communities, control over the resources from water bodies such as inland fisheries was rarely intended to be part of state income. The state did not assign much importance to revenue from the fishing business as it was scattered, and therefore, imperceptible. Land revenue happened to be the main source for all ruling authorities until the mid-eighteenth century, when the trading companies such as the East India Company emerged as rulers of Bihar, Bengal and Orissa provinces. The colonial rule in India under aegis of the British crown brought with it many European concepts that included modern acts of taxing inland fisheries. The government redefined many long existing traditional rights of the communities and revenue rights of the state. Unlike the medieval rulers, the colonial administration looked at the rivers and water bodies as an important resource. The status of fisheries changed drastically because the

government could now foresee the prospect of income from the fisheries. In the eighteenth and early nineteenth centuries access to water was important for their control over trade. The British Crown took full-fledged control over India from the East India Company in 1858 by the Government of India Act. After this, the British government began to invest massively on canal construction and embankment of rivers as their focus had now shifted from pure trade to administering the vast territory.

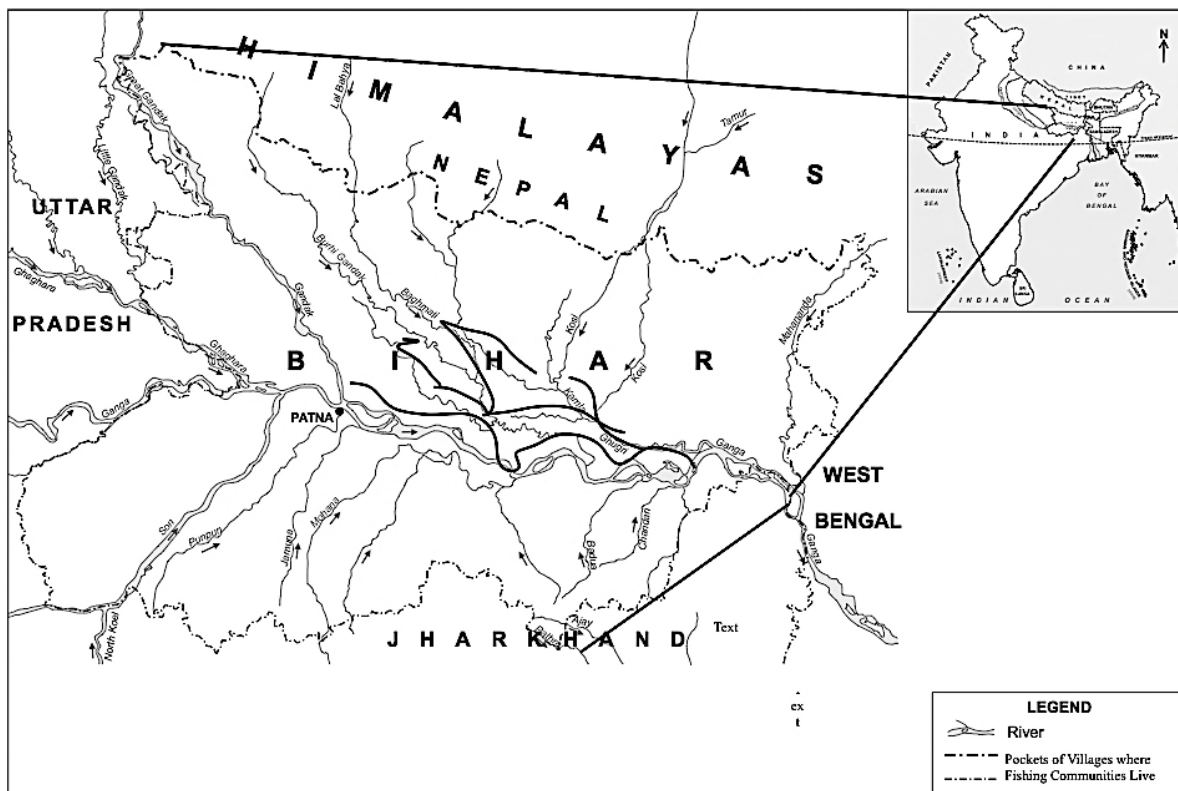
Earlier, laws with limited direct implication on local communities were instituted by the colonial government such as the Bengal Regulation VI of 1819. This was the beginning of a fresh attempt not only to codify a European law but also to regulate the movements in rivers. Later Ferries and the Charter Act of 1833 were introduced (Cullet and Gupta 2009). After 1858, the British control over India became very firm and they began to invest in the management of water bodies by regulating canals and providing irrigation facilities. It began to control access to water, and the common people's right to water was regulated through the gradual introduction of European principles. It advocated that in terms of groundwater, landowners had essentially unlimited right to access to water, but in the relation to canal water, the riparian rights allowed a landowner the right to use only a limited portion of the flow of a water. A series of regulatory statutes were also enacted, including laws to protect and maintain embankments and to acquire land for embankments, such as Embankment Regulation Act 1829; Bengal Embankment Act 1885. Canal Act was passed in 1864. Certain laws such as India Ferries Act 1878 were introduced to regulate canals for navigation purposes and taxes were levied on the users.

Other than providing irrigation facility and protecting people from flood, there were other dynamics to the construction of canals and embankments. There were various financial interests, which allowed such a huge project to be underway (McGinn 2009, p. 13). The implications on the water regime in general were grave. The benefits to the fisheries in particular also got diminished in the long run. At the same time, excludability and subtractability became more evident. Rivers that were being embanked and canalised as 'commonisation' process, actually led to 'decommonisation' in the long run (Nayak and Berkes 2011). Also an early twentieth century engineer, William Willcocks has suggested that the colonial engineers were possibly mistaken by their success of the flood control projects that worked wonders in Punjab and the United Provinces. The mid-Ganga plain is very flat in comparison to Punjab and the United Provinces, and many rivers confluence the main river Ganga. The flow of water is more spread out, and thus does not provide any natural embankment to the rivers (Singh 2017). In that sense, the geomorphology of the mid-Ganga basin was completely different, and therefore, according to Willcocks (1930, p. 59), the colonial engineers "blundered badly" here. It was subsequent to gradual progression of control over water bodies that inland fisheries began to be considered as a major loss for the state, as inland fisheries had previously provided good income for the local fishing communities of Bihar, a state located in mid-Ganga basin (see Figure 1).

The early modern regimes did not impose any tax on fisheries, which was the economic basis of the *diara* community. After the grant of *diwani* or land revenue rights in 1765 the British East India Company tried to re-define all traditional rights through modern acts. It gradually established the state control on the rivers, lakes and ponds, and thus considerably changed the pre-colonial way of surviving the adverse ecological setting. The Company introduced water tax or *jalkar* (*jal* being water and *kar* is tax) in lakes and ponds in the area directly under their control. Over the nineteenth century, *jalkars* came into the possession of

*ijaradars* and they, who were able to charge fishermen for access to the fisheries. The *ijaradars* were basically revenue farmers, and the East India Company's government during its early period of rule farmed out revenue to the *ijaradars* by putting its directly controlled land on auction. The larger portion of land in Bihar, Bengal and Orissa was under the control of the *zamindars*, who were the traditional land holders of huge land. The government entered into a revenue settlement with them in 1793, what is known as the Permanent Settlement. Under the terms of the settlement, the *zamindars* were given hereditary rights of their *Zamindari* or tradition land, and they were required to pay 89 per cent of the land revenue collected from the farmers to the government, and retain 11 per cent with them. In terms of fisheries, the *zamindars* did not collect any tax or *jalkar* from the fishermen. The available archival sources of the early nineteenth century are absolutely silent on such taxation in *Zamindari* land. In fact, there was no concept of license or permit till very late in the nineteenth century.

The Bengal Private Fisheries Act, Act II of 1889, however, allowed the *zamindars* to control private ponds and tanks in which fish were cultured for private use. Now there were no free inland fisheries, in which the public could have access without license.



**Figure 1.** Mid-Ganga Basin and Pockets of Fishing Community Villages

## 2. Diara Ecology

The mid-Ganga basin is home to many rivers. Rivers coming down from the Himalayas and the Deccan plateau meet the Ganga in the modern state of Bihar. When the rivers come down as swollen rivers from the Himalayas during summer they deposit the sand and sediments in the main riverbed during the process of retreating. This leads to the shifting of the course very

frequently and emergence of new land almost every year. *Diara* is basically the vast landmass around rivers formed like an island due to silt deposition over a long period of time by the Ganga and its tributaries. R. H. Colebrooke in his map of 1796-1797 has shown the land that once inside the river and now occupied by the villagers. It is in this vulnerable and temporary landmass that the fishing communities have been living for centuries (see Photo 1).

The formation of the new islands in one part of its course causes sweeping away of some old lands and emergence of new ones in other parts (Singh forthcoming). Therefore, in such changing landscape the right of ownership was an issue. Normally, the long usage of the land along the coast of the river by a family gave it the right of possession of any new land formed by the changing course of the river along the coast. However, on islands, beds or spaces formed by the rivers, there was no unanimity over the ownership. A landholder on either side may claim a right over these formations. The complex fluid character of *diara* landscape had never created any dispute in the pre-colonial society. The frequent cutting and deposition of soil led to instability and uncertainty for the people inhabiting this area, and therefore, no permanent land tenure system could develop here. Because of frequent process of creation and dissolution, the communities living here were able to produce only one winter crop, and that too after the receding of floodwater after October every year (see Photo 2). The fishermen were free to catch fish from the riverfront (see Photo 3). The British began to consider *diara* land as loss of revenue on an enormous mass of land, which used to come up after annual inundation. The huge riverfront of the *diara* also began to be seen as potential fisheries zone for taxation. The government assumed that the lands crisscrossed by rivers were ‘underutilised’ and thus needed to put to better handling. The British East India Company, which had come to India in the seventeenth century as a trading company and had been able to acquire land revenue rights in Bihar, Bengal and Orissa in 1765 from the ruling Mughals, aimed at stabilizing the fluid landscape. Once it realized that the unsettled *diara* land was loss of huge revenue, the British East India Company sought to settle all disputes liable to arise in future on the possession of the *diara* land. For this, the Regulation XI called the Bengal Alluvion and Diluvion Regulation was passed in 1825 as a kind of tangible *diara* legislation.

The vulnerability and temporality of the *diara* landscape did not allow any permanence in cultivation. For the communities living here, river fisheries were the main livelihood (see Photo 4).



**Photo 1.** House of fishing communities in *Diara*



**Photo 2.** *Diara* land filled with huge amount of silt after receding of the flood water



**Photo 3.** Fishermen catching fish in their immediate riverfront



**Photo 4.** Fishermen taking out fish from the leased river water

### 3. European Notion of Conservation of Fishery

The British inland fisheries policy was unprecedented and unique to India. By the second half of the nineteenth century the British administrators in India began citing the case of England and Scotland as the basis for the eventual enactment of Bengal Private Fisheries Protection Act of 1889. This does not, however, suggest that the 'modes of production and social relations' in colonial India were not the result of 'cultural or economic imperialism' as has been argued by Ravi Rajan in the context of forestry. He has shown that there was nothing distinctive about forestry as practiced in the colonial context (Rajan 1998). To him 'environmental imperialism' was the outcome of the 'transplantation' into a colonial territory of the type of forestry idea that was in place in Europe. On the contrary, in the context of inland fisheries the economic agenda and financial interest of the colonial state was very much in place when it came to transplanting a European model or notion of inland fisheries.

In England, a free fishery or exclusive right of fishery could be possible only through royal permit (BPPFA 1889, p. 105). An individual claiming a right of fishery must show the foundation of his claim. In all navigable rivers, people in general were allowed to fish, and if anyone claimed it exclusively, he was supposed to prove such exclusive right of undisturbed possession for thirty years or more. In the rivers that were not navigable the right of fishing belonged to the owner of the soil on either side, but in navigable rivers since the bed of the river belonged to the crown, the right of fishing was also laid with the crown. In the case of ponds, the possessor of the soil was considered the owner of the fisheries, and he could let out the fishing right to anyone. In surrounding seas, people were allowed to fish freely. In Scotland, however, since salmon fishing was very popular so as a general rule the rights of all salmon fisheries in rivers and surrounding seas were vested in the crown. No one was allowed to fish with nets or engines without a permit (BPPFA 1889, p. 105).

In India, the right of fishery was called *jalkar*. Although traditionally, the right to fish in all large natural water bodies was usually leased by the *zamindar* at an annual rent, but taking of fish from a public navigable river in which another has a right to fish was not considered theft. Catching of fish in a navigable river did not lead to conviction of the offender. As the fish were free in nature, nobody could be said to be the exclusive owner of them. The 1889 Bengal Private Protection Fisheries Act was an outcome of the increased governmental interference in the affairs of the traditional fisheries rights. By the beginning of 1870s the Judges in the criminal court began giving judgments on infringement of exclusive right of fishery. Until then, there were rarely any decisions in the criminal court affecting the question of *jalkar* rights. Fish catching cases in navigable river were now being brought before the Court – e.g., Hurimoti Moddock v/s Donath Malo and others (BPPFA 1889, p. 105). The Session Judge of East Burdwan gave order to charge the offenders with catching fish from a river which lied in the proprietary rights of another individual – in Khetter Nath Dutt v/s Indro Jalia and others case (BPPFA 1889, p. 105). Magistrates were now adjudicating taking out fish as trespass, and it was only after the High Court intervention in 1888 that it was decided that a navigable river could not be said to be in any body's possession. One such Court case was Bhushan Parui v/s Denonath Bonnerjee, (BPPFA 1889, p. 107). It was adjudicated that the river being public, therefore could not be considered in exclusive possession of any one. In the case of a pond or tank enclosed on all sides, these were normally the property of the individual. Taking out fish from an enclosed tank was considered as theft as it was adjudicated in Queen-Empress v/s



Shaik Adam Valac and others case (BPPFA 1889, p. 105). The High Court held that the tank from which the fish had been taken out was an enclosed tank in which the fishes were 'restrained from their natural liberty'. Since the fishes were unable to escape from the tank, it was practically in the dominion of the property owner, and therefore, the offender was convicted of theft. In times of flood fishing from these ponds was not restricted because such ponds depended on overflow of a neighboring channel for its supply of fish and catching fish in such season was not a criminal offense. One such case during flood months came up before the Court in 1888. Nichala Katani and his family members were charged with having taken out fish from the tank of Maya Ram Surma under Section 379 and 447 of the Indian Penal Code for trespassing. The Judges held that the fish were *feræ naturæ*, and so not in possession of the complainant (BPPFA 1889, p. 106). In many other cases the High Court decided that wild fish in a natural state were not property of any person until caught. In nutshell, till this time the High Court was still sympathetic to the fish takers, unless and until the individual property rights is not infringed.

While such cases were coming up so frequently in the High Court for judgments, the administrators were pushing to bring in legislations on the protection of private rights on fisheries (Government of Bengal 1889). The private proprietors, on the one hand looked for a legislation that could give them exclusive rights on fisheries in their area; the government officials were planning a complete state control on rivers and streams. E. C. Buck, the Secretary to the Government of India Revenue and Agricultural department also recommended for the fisheries acts on the basis of the conference held in Delhi on 31<sup>st</sup> March and 3<sup>rd</sup> April 1888 (Government of Bengal 1888). The delegates of the Delhi conference had agreed upon certain conclusions, and recommended for some immediate measures, but not in the form of legislation. It recommended for the protection of fishes from the effect of explosives, prevention of poisoning of water, enforcement of fish ladder, regulation of fixed obstructions and engines in the river, and protection of stock-pools. The members of the conference were not unanimous, however, on keeping the rivers and streams as *feræ naturæ* for the purpose of catching fish, and the declaration of any right to fish in waters or rivers of a province by the government. The British officials, on the other hand, believed that there was a need for Acts as certain situations had not existed earlier. E.C. Buck wrote to H.S. Thomas, who was asked by the government to do a survey on the Acts, asking to visit various canals like Yamuna canal and Ganga canal. He suggested that a decision needed to be arrived at as reservoirs and natural depressions due to canals fed by canal waters also have many fishes. The colonial interest of the government was becoming pronounced.

#### **4. Colonial Interest and Process of Transformation of Fishery Rights**

After the grant of *diwani* or revenue rights in Bengal (that included Bihar, Bengal and Orissa) and subsequent expansion of colonial rule, the British government began to re-define all rights. It started with revenue related rights, but gradually brought all other land and water related rights under review. State control over water meant control over access to river water. This considerably changed the pre-colonial relationship between the river dependent communities of fishermen and fisheries. The major transformation in the policy of the British government came after 1793, when Permanent Settlement of 1793 was introduced in Bengal. *Zamindars*

remained central to the British administration, as they were the traditional landlords in Bengal. They were so influential in the countryside that not even the early modern regime of the Mughal could completely annihilate them. Like many revenue related rights, the fisheries right also got transferred from the common people to the *zamindars*. The *zamindars* were given rights to the fisheries in the riverfront adjoining their lands as part of their income. They also controlled the fisheries in private ponds and tanks in which fish were cultured.

By the last quarter of the nineteenth century, many British reports recommended that fisheries might prove as a valuable source of revenue for the state. It was after this that the British government passed two inland fisheries acts, which clearly distinguished the *zamindar* entitled fisheries and state entitled fisheries. Within two decades the situation emerged that there were no free fisheries in which the public could access without license, except sea. It may be reiterated that although the fisheries rights got divided into *zamindars'* and state's, in all cases the fishing rights were leased out. It meant that river water for fishing was decommonised, and public fishing in the rivers was normally not allowed. The pre-colonial tradition of free fishing in rivers and ponds changed. The *zamindars* began the practice of leasing out *jalkar* to *ijaradars* (i.e., highest bidder). In most cases the right of fishing was transferred with the land. They let out the fishing right to the renters (*mustajirs*), who sometimes employ men to catch the fish for wage, or for a share. It was sometimes re-let to the traditional fishermen. The fishermen who caught fish from *zamindar* mahal gave one-third of the fish to the agents of the landlords (Hunter 1877). In Patna district, the fisheries in ponds and reaches of the rivers were annexed to the lands by which they are surrounding and were leased for very trifling sums (Hunter 1877, p. 84). In Shahabad district, in the parts of the channel of the Ganga, which in the dry season contained not much flow, the fisheries were private property and were leased (Hunter 1877, p. 92).

During its early phase the colonial government did not have much knowledge of fisheries and were interested only in the disposition or financial arrangements for *julkur*. By the late nineteenth century the financial interest of the colonial government became more apparent. Francis Day wrote in 1873, "It may be found advisable to legislate for regulating the exercise of the public right of fishing in all our navigable rivers. As yet we have been unsuccessful in our endeavours to curtail that right, or to enforce the claim of government to levy a tax from those who have been in the habit of exercising it" (Day 1873, p. 3). Francis Day was particularly emphatic on the fact that many fisheries were available free in nature. He was surprised to know that revenue was neither obtained from the fisheries in the large navigable river, which was freely open to people, nor from the private fisheries (Hunter 1876). He believed that non-regulating the fisheries under British rule had a disastrous effect. Day said that fisheries have been well regulated under government's Acts in countries of Europe, and therefore, in India too it could be managed through inland fisheries acts.

On the basis of the recommendation of Francis Day, the Indian Fisheries Bill was prepared that also included private rights and prevention from trespass on the rights of others. The example of salmon was cited to enact law on migratory fishes. Based on the law in England on salmon migratory fishes, Indian fresh water fishes were also identified for protection. It was argued that because of the natural tendency of the freshwater fishes to migrate, no riparian proprietor could claim an exclusive right in such a passing property. The exercise of such a claim would in either case be damaging to his neighbours. In the case of fish it would be more damaging because migration is the necessity of its existence. Therefore, any measure to stop the migration of fishes from one property to the other would affect their reproduction and might



even cause its extinction (BPPFA 1889, p. 111). Thus conservation of freshwater fish was the main rhetoric behind new acts. Peter Reeves argues that these far reaching changes shifting the control over fisheries seriously compromised the real conservation needs of the fishes (Reeves 1995). By 1889, it was clearly notified that taking fish from a river or even from 'enclosed piece of water' would be an offence under the penal code (BPPFA 1889, p. 104). The Bengal Private Protection Fisheries Acts 1889 was enacted to serve that purpose. Few years later, Inland Fisheries Acts of 1897 (covering the whole of India) was passed based on Bengal Private Protection Fisheries Acts 1889.

## **5. Effect on Fishing Community of *Diara***

The erection of embankments, construction of highways and railways affected the flow as well as the course of the rivers. The rivers were obstructed from flowing freely and so flood became unruly. It led to the inundation of the homestead of the fishing communities, who preferred to migrate temporarily during the flood months. Most of the homestead in *diara* was on a mound and in the pre-colonial period the communities often remained in their villages living on the storage done during November to June every year. During the flood months they were able to sell fishes in the urban areas. Free nature fishes were most important in floods times; because flood had destructive nature; flood can be destructive to the main food resource and the economic basis of people. In this situation free nature of fisheries had played the most important role in sustaining people's livelihoods. During flood months, free fishes fulfilled protein requirement of the *diara* community. The scenario changed drastically after the British regulations on *diara* land, and thereafter, the communities living in *diara* villages did not have enough food to survive the inundation months. Resultantly, they preferred to migrate to the neighbouring urban areas during the months of July to November. Most of the poor communities of *diara* migrated every years in search of work and food. Their temporary migration in that sense forced them to become 'environmental refugees' (EL-Hinnawi 1985, p. 4). Their decision to migrate and come back to original location was the only resort and a normal adaptation strategy (Singh 2012). Over the years, the phenomena of temporary migration of many *diara* villagers became permanent in nature as fish catching from the rivers and streams, their main livelihood, had become illegal.

## **6. Conclusion**

The colonial rule was disastrous for many of the customary rights including fisheries. It re-defined all rights and tried to take control over access to the water and its resources. The British gradually established state control over water bodies and considerably changed the pre-colonial relationship between the fishermen and fisheries. By drawing similarity to salmon of England, much of the deliberations and noting seem to suggest that government was concerned about the conservation of freshwater fishes of Indian rivers. In addition, many colonial reports from the nineteenth century began to suggest to the government that fisheries might prove as a valuable source of revenue. As a result of which, British government passed two inland fisheries acts - Bengal Private Fisheries Rights Acts 1889, and Inland Fisheries Acts of 1897.

These acts, contrary to their stated intents led to more privatization of water bodies and consequently of the fishes, thus adversely affecting the income of the fishing community living in *diara* landscape. This may not be proved with a statistical account because of the paucity of data on the actual income of the fishing community living in *diara*, but the increased migration pattern over the last decade of the nineteenth century suggest that the community surviving on inland fishery might have been affected economically by the modern acts.

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## References

- BPPFA. (Bengal Private Protection Fisheries Acts (1889) Proceeding of Legislative Department, National Archives of India, New Delhi.
- Cullet, P. and Gupta, J. (2009) Evolution of water law and policy in India. In: *The Evolution of the Law and Politics of Water* (eds. J.W. Dellapenna and J. Gupta), Springer Academic Publishers, Dordrecht, pp.159-175. Available from <http://www.ielrc.org/content/a0901.pdf>. Accessed on 10 June 2016.
- Day, F. (1873) *Report on the Fresh Water Fish and Fisheries of India and Burma*. Office of the Superintendent of Government Printing, Calcutta.
- El-Hinnawi, E. (1985) *Environmental Refugees*. United Nations Environmental Programme, Nairobi, Kenya.
- Hunter, W. (1876) *A Statistical Account* (vol-11). D.K. Pub. House, Delhi, pp. 30-35.
- Hunter, W. (1877) *A Statistical Account of Bengal* (vol-20). Trubner & Co., London.
- Government of Bengal (1888) Letter from the Secretary to the Government of India to the Chief Secretary to the Government of Bengal, Circular No. 54, dated 13<sup>th</sup> June, 1888, Legislative Department Proceedings, National Archives of India, New Delhi.
- Government of Bengal (1889) Letter from Assistant Secretary to the Government of Bengal to the Secretary to the Government of India, No. 83, dated 19<sup>th</sup> March, 1889, Legislative Department Proceedings, National Archives of India, New Delhi.
- McGinn, P. (2009) Capital, 'development' and canal irrigation in colonial India. Working paper. Institute for Social and Economic Change, Bangalore. Available from <http://www.isec.ac.in/WP-209.pdf>. Accessed on 10 August 2015.
- Nayak, P.K. and Berkes, F. (2011) Commonisation and decommonisation: understanding the processes of change in the Chilika Lagoon, India. *Conservation and Society* 9, 132-45.
- Rajan, R. (1998) Imperial environmentalism and environmental imperialism: European forestry, colonial forester and the agenda of forest management in British India 1800-1900. In: *Nature and the Orient* (eds. R.H. Grove, V. Damodaran and S. Sangwan. Oxford University Press, New Delhi, pp. 359-360.

- Reeves, P. (1995) Inland waters and freshwater fisheries: issues of control, access and conservation in colonial India. In: *Nature, Culture and Imperialism: Essays on the Environmental History of South Asia* (eds. D. Arnold and R. Guha), Oxford University Press, Delhi, pp. 260-292.
- Singh, V. (2012) Environmental migration as planned livelihood among the Rebaris of Western Rajasthan, India. *Global Environment* 9, 50-73.
- Singh, V. (2017) "Where many rivers meet: river morphology and transformation of pre-modern river economy in Mid-Ganga Basin, India". In: *Environmental History in the Making, Vol. I: Explaining* (eds. E. Vaz, C.J. de Melo and L.M.C. Pinto), Springer International Publishing, Switzerland, pp. 187-206.
- Singh, V. (forthcoming) *Speaking River: Environmental History of A Mid-Ganga Flood Country, 1540-1885*. Primus Book, Delhi.
- Willcocks, W. (1930) *Ancient System of Irrigation in Bengal and Its Application to Modern Problems*. Reprinted in 1984. B. R. Publishing Corporation, Delhi.